

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Androlia on 3/12/2009.

The application has been amended as follows:

IN THE SPECIFICATION:

2. The paragraph bridging pages 12 and 13 now reads as follows:

To achieve the above objects, a first aspect of the invention relates to a cargo transportation box body such as a container or the cargo bed of a truck with a cargo-handling device for cargo unloading or loading, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein a sprocket with projections on its periphery is attached around an axis at the base of the movable partition wall to be rotatable round the axis driven by a reversible motor, a first chain comprising a series of rings has one end fixed to the left (or right) posterior end of the box body and the other end to the right (or left) anterior end of the same body while a second chain comprising a series of rings has one end fixed to the right (or left) posterior end of the box body and the other side to the left (or right) anterior end of the same body, and the first and second chains cross with each other at their mid-portions where resides the sprocket such that the holes of the rings constituting the first and second chains engage with the projections of the sprocket.

3. Page 13, first full paragraph, now reads as follows:

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According to the first aspect of the invention, unloading of cargo including loose loads such as chips laid on the floor board of a box body such as a container occurs by alternately repeating a cargo-shifting step comprising shifting the floor board together with the overlying cargo and a movable partition wall towards an access port, and a cargo-halting step comprising retreating only the floor board by latching the movable partition wall, thereby prohibiting the retreat of the cargo. Thus, the position of the movable partition wall and cargo relative to the floor board is altered step by step each time the two steps are performed sequentially, such that heaps of loads are brought one after another to the access port to be hauled out.

4. Page 14, second and third full paragraphs, now read as follows:

A second aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein the motor also serves as a braking mechanism for arresting the rotation of the sprocket when inactivated.

According to the second aspect of the invention, the motor not only exerts effects as described in the first aspect, but also serves as a rotation arresting mechanism for arresting the rotation of the sprocket when inactivated. This dispenses with the need for the introduction of a rotation arresting mechanism dedicated for the purpose. Namely, inactivation of the motor not only stops the rotation of the sprocket but also immobilizes the sprocket, thereby halting the movable partition wall.

5. Paragraph bridging pages 14, 15 and 16, now read as follows:

A third aspect of the invention relates to a cargo transportation box body such as a container or the cargo bed of a truck with a cargo-handling device for cargo unloading or loading, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein first and second rotary bodies are attached at a low level on the sides of the movable partition wall one on each side, and third and fourth rotary bodies are similarly attached on the sides of the movable partition wall such that the first and third rotary

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bodies come into proximity on one side while the second and fourth rotary bodies come into proximity on the other side, the mid portion of a first chain comprising a series of rings is wound round the first and fourth rotary bodies while the mid portion of a second chain comprising a series of rings is wound round the second and third rotary bodies such that the two chains are stretched between the respective two rotary bodies, and the first and second chains are stretched between the first and fourth rotary bodies and the second and third rotary bodies with a sprocket at the center which is rotatable round an axis, can be stopped via a rotation arresting mechanism attached to the axis, and has on its periphery projections to engage with the holes of the rings of the chain wherein one set comprising the first chain engaging with the first and fourth rotary bodies and the other set comprising the second chain engaging with the second and third rotary bodies form a stack with respect to the sprocket with the rotation arresting mechanism attached thereto such that, when one set-combines with the sprocket, the movable partition wall is fastened to the box body and when the other set combines with the sprocket, the movable partition wall is fastened to the floor board or vice versa.

6. Page 16, first full paragraph, please amend as follows:

According to the third aspect of the invention, unloading of cargo including loose loads such as chips laid on the floor board of a box body such as a container occurs by alternately repeating a cargo-shifting step comprising shifting the floor board together with the overlying cargo and a movable partition wall towards an access port, and a cargo-halting step comprising retreating only the floor board by latching the movable partition wall, thereby prohibiting the retreat of the cargo. Thus, the position of the movable partition wall and cargo relative to the floor board is altered step by step each time the two steps are performed sequentially, such that heaps of loads are brought one after another to the access port to be hauled out.

7. Paragraph bridging pages 17 and 18, now reads as follows:

A fourth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein the stretch of each of the first and second chains from the fixed terminal end to the initially encountered rotary body is housed in a groove with

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a laterally opened slit provided over the floor board along a basal lengthwise corner of the box body.

8. Page 18, first, second, third, fourth and fifth full paragraphs, now read as follows:

According to the fourth aspect of the invention, the chains can be extended over the floor board not to disturb the cargo-handling.

A fifth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein the groove has its laterally opened slit closed with a hanging flexible plate body.

According to the fifth aspect of the invention, it is possible to prevent the entry of loads into the groove since the laterally opened slit of the groove is closed by a hanging flexible plate body.

A sixth aspect of the invention relates to a cargo transportation box body with a cargo-handling device which is a container.

According to the sixth aspect of the invention, it is possible to enhance the advantages inherent to the container-based cargo transportation such as reduced cost involved in transportation and packaging, reduced period for transportation, and less damages of cargo during transportation.

9. Paragraph bridging pages 18 and 19, now reads as follows:

A seventh aspect of the invention relates to a cargo transportation box body such as a container or the cargo bed of a truck with a cargo-handling device for cargo unloading or loading, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, and a hydraulic control system for driving the cylinder at an anterior position in the box body.

10. Page 19, first full paragraph, now reads as follows:

According to the seventh aspect of the invention, unloading of cargo including loose loads such as chips laid on the floor board of a box body such as a container or

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the cargo bed of a truck occurs by alternately repeating a cargo-shifting step comprising shifting the floor board together with the overlying cargo and a movable partition wall towards an access port, and a cargo-halting step comprising retreating only the floor board by latching the movable partition wall, thereby prohibiting the retreat of the cargo. Thus, the position of the movable partition wall and cargo relative to the floor board is altered step by step each time the two steps are performed sequentially, such that heaps of loads are brought one after another to the access port to be hauled out.

11. Page 20, first, second and third full paragraphs, now read as follows:

An eighth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein the hydraulic control system comprises a pump, a work oil tank, an engine for driving the pump, and a fuel supply tank.

According to the eighth aspect of the invention, the hydraulic control system comprises a pump, a work oil tank, an engine for driving the pump, and a fuel supply tank. With a container equipped with such a system, the operator can basically manage the handling of cargo without requiring any additional equipment.

A ninth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein a rail is provided lengthwise on the floor board, the movable partition wall is mounted on the rail to move on the rail, a unilateral braking mechanism using a cam is provided on one side of the movable partition wall so that the cam can engage with the rail.

12. Paragraph bridging pages 20 and 21, now reads as follows:

According to the ninth aspect of the invention, the movable partition wall maintains a stabilized condition even when violently pressed by heavy loads, and smoothly moves synchronously with the floor board by virtue of the unilateral braking mechanism. In order to latch the movable partition wall and move only the floor board, the unilateral braking mechanism may be inactivated. When the movable partition wall alters its position relative to the floor board, it performs this by running on the rail which ensures a stable shift free from sideward fluctuations.

13. Page 21, first and second full paragraphs, now read as follows:

A tenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein cylinder units are provided at anterior and posterior positions of the floor board, and when activated, the cylinder units move the floor board in the same direction.

According to the tenth aspect of the invention, unloading of cargo including loose loads such as chips laid on the floor board of a box body such as a container occurs by alternately repeating a cargo-shifting step comprising shifting the floor board together with the overlying cargo and a movable partition wall towards an access port, and a cargo-halting step comprising retreating only the floor board by latching the movable partition wall, thereby prohibiting the retreat of the cargo. Thus, the position of the movable partition wall and cargo relative to the floor board is altered step by step each time the two steps are performed sequentially, such that heaps of loads are brought one after another to the access port to be hauled out.

14. Page 22, first and second full paragraphs, now read as follows:

An eleventh aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein cylinder units are provided at anterior and posterior positions of the floor board, the anterior cylinder unit moves the floor board in a direction opposite to the one wrought by the posterior cylinder unit, and only the cylinder unit to pull the floor board is activated.

The advantage obtained from the eleventh aspect of the invention is essentially similar to the one obtained from the tenth aspect of the invention. The movement of the floor board effected by the extension of the anterior cylinder unit is opposite in direction to the one effected by the extension of the posterior cylinder unit, and whenever the floorboard must be moved in a certain direction, the cylinder unit whose pull effects the movement of the floor board in that direction is selected for the work. This prevents the development of any bending on the floor board.

15. Paragraph bridging pages 22 and 23, now reads as follows:

A twelfth aspect of the invention relates to a cargo transportation box body with a cargo-handling device for cargo unloading or loading provided in the box body or within

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the enclosure of a container, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein the box body has an access port for cargo unloading with doors hinged thereon on its posterior end, and contains, in addition to the access port, a cargo loading opening on the roof or on a side wall thereof.

16. Paragraph bridging pages 23 and 24, now reads as follows:

According to the twelfth aspect of the invention, the container is equipped with a cargo-handling device, and it is possible to mechanize the loading and/or unloading of multiple loads, such as chips, which have been packed densely in the box body haphazardly with no pallets being inserted therebetween. The container contains, within its enclosure, a movable partition wall to serve as a device for cargo unloading or loading. For cargo unloading, it is possible to shift cargo including loose loads such as chips towards the access port to expel the cargo out of the container by moving the partition wall. For cargo loading, it is possible to transfer cargo towards the anterior end of the container by using the movable partition wall. It is possible to mechanize the loading and/or unloading of multiple loads which have been packed densely in the container haphazardly with no pallets being inserted therebetween, without requiring the serious modifications of the container, nor the implementation of a large cargo handling device besides the container.

17. Page 24, second and third full paragraphs, please amend as follows:

A thirteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein the cargo loading opening is formed at an anterior portion of the box body.

The thirteenth aspect of the invention ensures, in addition to the advantage given by the twelfth aspect of the invention, efficient cargo handling: since the cargo loading opening is formed at an anterior portion of the box body, heaps of loads can be put from

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the anterior opening into the box body one after another to be sent posteriorly, and they are taken out from the posterior end one after another in a first-come first-out manner.

18. First full paragraph on page 25 through second full paragraph on page 27, now reads as follows:

A fourteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device for cargo unloading or loading provided in the box body or within the enclosure of a container, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein the box body has an access port for cargo unloading with doors hinged thereon on its posterior end, and contains, in addition to the access port, a cargo loading opening on the roof close to the access port.

The advantage given by the fourteenth aspect of the invention is essentially similar to that given by the twelfth aspect of the invention as far as cargo unloading is concerned. For cargo loading, however, since it is possible to charge loads into the box body through the cargo loading opening formed on the roof, the operator can use a crane or shovel.

A fifteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein upon the floor board laid is a flexible mat which extends, having one end fixed on the movable partition wall, beyond the posterior end of the floor board to support loads thereupon.

According to the fifteenth aspect of the invention, during cargo loading, the doors of the access port are closed to serve as a fence to limit the further backward shift of cargo, thereby facilitating the orderly packing of heaps of loads in an antero-posterior direction. Since loads are laid on the mat whose one end is fixed to the movable partition wall, they remain stationary as long as the movable partition wall is latched to be immobilized, even when the floor board is moved. Furthermore, since the mat is so flexible that its redundant portion extending from the posterior end of floor board hangs

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downward from that end and does not disturb the dropping of loads during cargo unloading.

A sixteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device for cargo unloading or loading provided in the box body or within the enclosure of a container, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein the box body has an access port for cargo unloading and loading on its posterior end having doors hinged thereon wherein a stopper is provided on its lower edge to intercept the retreat of loads once hauled in.

The advantage given by the sixteenth aspect of the invention is essentially similar to that given by the twelfth aspect of the invention as far as cargo unloading is concerned. For cargo loading, however, since it is possible to charge loads into the box body through the access port whose doors are opened, and thus to accomplish the orderly packing of cargo in an antero-posterior direction with the stopper serving as an intercept for limiting the backward movement of loads once hauled in.

A seventeenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device for cargo unloading or loading provided in the box body, the box body having on its bottom a floor board movable via a cylinder in an antero-posterior direction, and a movable partition wall on the floor board such that, when the movable partition wall is latched, only the floor board is movable, and when allowed to move, the movable partition wall moves in association with the floor board, wherein a groove with a laterally opened slit is provided along a basal lengthwise corner of the box body, a rack rail is housed in the groove, and a cam capable of unidirectional stoppage of the rack rail is attached to the movable partition wall.

19. Paragraph bridging pages 27 and 28, please amend as follows:

According to the seventeenth aspect of the invention, the box body such as a container contains a cargo handling device which enables the mechanized loading

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and/or unloading of cargo including loose loads such as chips which have been packed densely in the container haphazardly with no pallets being inserted therebetween.

20. Page 31, first, second, third and fourth full paragraphs, now read as follows:

An eighteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein a flexible plate body is provided to cover the laterally opened slit of the groove.

According to the eighteenth aspect of the invention, since a flexible plate body covers the laterally opened slit of the groove which houses the rack rail, it is possible to prevent trash escaping from loads such as chips from entering the groove or being captured between the cam and the rack rail.

A nineteenth aspect of the invention relates to a cargo transportation box body with a cargo-handling device wherein, in addition to the rack rail housed in the groove provided on the box body, another rack rail is provided on the floor board, and, in correspondence with those rack rails, plural cams are provided on both sides of the movable partition wall.

According to the nineteenth aspect of the invention, since the movable partition wall can also be fastened to the floor board via additional cams and rack rails, it is possible to further ensure the synchronous movement of the movable partition wall with the floor board.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA I. RUDAWITZ whose telephone number is (571)272-7856. The examiner can normally be reached on Monday - Friday, 7:30 A.M. - 5:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J. I. R./

Examiner, Art Unit 3652